Fall Session 1981

Continuing Education

University of Lowell

NEW GRADUATE PROGRAMS
Biological Sciences
Computer Science

See page 3

University of Lowell
Continuing Education
Cumnock Hall
Lowell, MA 01854

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General Information

History & Aims

The University of Lowell welcomes your interest as a prospective student. While a new school by virtue of 1973 Massachusetts legislation, the University of Lowell is actually a merger of two long-established educational institutions – Lowell State College and Lowell Technological Institute. These two components of the University represents a 161-year contribution to higher education dating back to the 1890's. Administration, faculty and resources of the two co-educational schools are now combined in the University of Lowell, an institution comprising seven colleges, a graduate school, continuing education and evening school facilities.

The aim of Continuing Education (which includes the Evening School) of the University of Lowell is to provide sound educational programs at both the graduate and undergraduate levels so that a student's years will be characterized by the growth of a mature and discerning mind, and the attainment of professional competence in a chosen field of concentration. Above all, Continuing Education seeks to prepare its students to be effective participants in the larger community, and thus encourages the development of an awareness of the relations between the intellectual and technical skills mastered in the classroom and the society in which we live. Students, it is hoped, will gain here a spirit of free inquiry and a dedication to the service of society.

"The University of Lowell is an Affirmative Action-Equal Opportunity University and does not discriminate on the basis of sex or handicap status in its educational programs, activities, or employment policies as required by Title IX of the Education Amendments of 1972 and Section 504 of the Rehabilitation Act of 1973, as amended."

Continuing Education

Continuing Education oversees all education at the University other than full time graduate and undergraduate programs. In operation day and night, twelve months a year, Continuing Education offers both credit programs leading to a degree, and non-credit courses, scheduled at times convenient for those in the community who seek to accommodate study at the University to their professional and domestic commitments. In addition to its full range of credit and non-credit offerings, Continuing Education's flexibility enables it to respond with a continually updated series of workshops and seminars to the professional advancement requirements of individuals and the immediate educative needs of industry.

Evening Division

The Evening Division operates the Evening School component of Continuing Education which offers a broad spectrum of courses to satisfy the educational needs of people who are restricted to evening attendance. Many Evening School students are transfer students from community colleges and other post-secondary institutions and veterans. The Evening School is particularly sensitive to the needs of people who seek vocational and professional career development. Programs are tailored so that the sequence of academic work will coincide with, and contribute to, systematic job progress over a period of years.

This information contained herein is accurate at the time of printing. Students should consult current catalog for detailed information.

The University of Lowell is an Equal Opportunity/Affirmative Action, Title IX, 504 Employer.

This brochure is printed at no cost to the Commonwealth of Massachusetts.

Registration

Register — A minimum of 15 students is necessary for each course. Early registration will help assure that the course you are interested in will be offered. Registration will be scheduled as follows:

Graduate Program:
September 1, 2
6:30-8:00 P.M.,
Cumnock Hall Auditorium, North Campus

Undergraduate Program
August 31; September 1, 2, 3,
6:30-8:00 P.M.,
Ball Hall, Room 214, North Campus

Community Service Program
September 16 & 17th
6:00-8:00 P.M.,
Duggan Hall, South Campus

DETACH AND MAIL TO:

University of Lowell
Continuing Education
1 University Avenue
Lowell, MA 01854

Please forward the current catalog or brochure concerning:

☐ Undergraduate Programs

Graduate Programs:
- ☐ Electrical Engineering, Computer Engineering & Systems Engineering
- ☐ Biological Sciences
- ☐ Business Administration

Mathematics
- ☐ Applied Mathematics Option and Statistics Option
- ☐ Mathematics for Teachers Option
- ☐ Computer Science Option

Name _____

Street & No. _____

City & State _____ Zip Code _____



Graduate Studies

The Graduate School of the University of Lowell offers courses in the late afternoon and early evening through Continuing Education for students who are unable to attend classes during the day. Such courses are either identical to those offered during the day or are equivalent in graduate level content; all carry graduate credit. These graduate courses are open to matriculated students presently enrolled in the Graduate School, to graduate students enrolled in other universities, to applicants for admission to programs in the Graduate School, and to Non-Degree students who are eligible to take graduate courses by virtue of having earned a bachelor's degree but who are not interested in studying for an advanced degree at this time. (Please note the eligibility limitations on the courses in Business Administration)

Graduate courses offered under the auspices of Continuing Education are not automatically transferrable to a degree program; students wishing to use them as part of an advanced degree program must have the approval of the coordinator of the program in question. If Non-Degree students want to have their course credits transferred to a degree program, they must apply for admission to the Graduate School, and once admitted, fill out an Academic Petition requesting the transfer of no more than 12 credits to their degree program. Such students must check the regulations of the department offering the program to ascertain the exact number of credits earned in a Non-Degree classification that may be transferred to a degree program.

Registration fee: $5.00.

Tuition: $50.00 per credit. All fees must be paid during registration.

Classes begin Tuesday, September 8th. For further information please contact:
Graduate School
University of Lowell
One University Avenue
Lowell, Ma. 01854
Tel: 452-5000, Ext. 2206

Course Offerings

All courses run 6:00-9:00 P.M., unless otherwise noted.

Business Administration - MBA Program

Courses in Business Administration are limited to students who have been officially admitted and matriculated in the MBA Program or to holders of an MBA degree.

		CR	DAY
60.601	Financial Accounting	3	Thur. (5-7:30 PM)
60.612	Managerial Accounting	3	Tues.
60.712	Controllership	3	Thur.
64.601	Economics of the Firm	3	Wed. (5-7:30 PM)
64.611	Quantitative Analysis	3	Mon.
66.622	Marketing	3	Tues.
66.651	Human Resource Management	3	Wed. (5-7:30 PM)
66.660	Business & Society	3	Mon.
66.672	Operations Management	3	Thur.
66.725	Marketing Communications	3	Wed.
66.731	Financial Management	3	Tues.
66.738	International Financial Management	3	Thur.
66.773	Advanced Operations Research	3	Mon.
66.774	Industrial Relations	3	Wed.
66.781	Business Policy	3	Mon.

Mathematics/Computer Science

		CR	DAY
92.560	Data Structures	3	Wed.
92.463	System Design & Development	3	Tues.
92.553	System Simulation & Modeling	3	Wed.
92.574	Data Base Management	3	Thur.
92.587	Math. Stat. I	3	Wed.
92.568	Operating System	3	Thur.
92.841	Geometry I	3	Mon.
92.565	Formal Languages	3	Mon.
92.563	Numerical Analysis	3	Wed.
92.871	Programming Language I	3	Thur.
92.502	Real Analysis II	3	Tues.

Electrical Engineering, Computer Engineering, Systems Engineering

		CR	DAY
16.500	Principles of EE	3	Thur.
16.505	Microwave Electronics	3	Mon.
16.509	Linear Systems Analysis	3	Wed.
16.517	Optimal Control Systems	3	Tues.
16.524	Programming Languages	3	Tues.
16.545	Coding Theory	3	Wed.
16.562	Microprogramming	3	Wed.
16.574	Intro to Digital Systems	3	Mon.
16.651	Microprocessor Design	3	Thur.
92.584	Analysis of Random Processes	3	Thur.

Music

		CR	DAY
73.551	Research in Music Education	3	Mon. (5-7:30 PM)
73.610	Therapeutic Experiences in Music	3	Wed. (5-7:30 PM)

Plastics

		CR	DAY
26.516	Composite Materials	3	Mon.
26.518	Product Design	3	Wed.
26.535	Rubber	3	Tues.

Biological Sciences

		CR	DAY
81.506	Biochemistry	3	Mon.
81.518	Experimental Hematology	3	Thur.
81.542	Cytology	3	Tues.
81.601	Graduate Seminar	2	Wed. (6-9 PM)

Education

		CR	DAY
01.521	Tests and Measurement	3	Wed. (7-9:30 PM)
01.635	Individual Assessment of Intelligence: Wechsler and Binet	3	Mon. (7-9:30 PM)

Undergraduate Evening School

Telephone No. 452-5000 X2221 or 2228

Credit Programs

The Undergraduate Evening School offers a wide panorama of college-level courses leading to associate and baccalaureate degrees. Students can work toward their degrees in these part-time, evening courses at a pace tailored to their individual free time.

Entrance requirements for undergraduate degree programs are graduation from a recognized high school or a Massachusetts High School Equivalency Certificate or equivalent.

General Policies

Policy Changes: The University of Lowell reserves the right to change requirements, subjects, courses, regulations, and other policies stated in the current catalogue without formal notice.

Matriculation: In order to be matriculated it is necessary for the student to demonstrate ability to participate in college level classes, in addition to satisfying the entrance requirements. Matriculation in a degree program is effected upon the satisfactory completion of a minimum of 18 credits in required subjects. One credit is one class hour per week per semester.

Registration Information

Scheduled Registration: Students may register by filling out the necessary forms and paying the required fees before attending classes. Registration is held on the dates indicated in the calendar. On those days the Business Office is open from 6:00 p.m. to 8:30 p.m. **A student is not registered until all tuition and fees have been paid and the individual class cards have been validated by the Business Office.** These cards are required for admittance to class; in addition, the Business Office will issue a numbered receipt. Students must obtain an identification card during this registration period.

Late Registration: Late registration is permitted for a limited period by payment of the late registration fee. No new registration or class changes are accepted after the end of the second week of classes.

Class Schedule: Classes in the Undergraduate Degree Program are scheduled on Monday, Tuesday, Wednesday, Thursday and Friday evenings as listed in the schedule from 7:00 p.m. to 10:00 p.m. Other hours are sometimes scheduled in individual subjects, in which cases the hours are listed with the subject descriptions. Saturday classes may also be scheduled.

Size Of Class: Those classes which do not register a minimum of 15 students may be cancelled.

Tuition & Fee Information

Registration Fee: A payment of $5.00 per semester is required of all students for registration and compulsory insurance, in addition to tuition and other charges. This payment is not refundable.

The above compulsory fee, approved by the Board of Trustees of the University of Lowell includes an accidental medical insurance plan to cover registered students in the Evening School while on the premises of the University for scheduled instruction and while engaged in any supervised activity sponsored by the Evening School. Payment will be made for medical expenses from such accidents up to a maximum of $1,000. Claim forms must be obtained from the Evening School Office and taken to the doctor or hospital at the time of treatment. Benefits are paid directly to the medical facility.

Tuition: Tuition charges for Undergraduate Degree subjects are $30.00 per contact hour.

Laboratory Fee: A $20.00 laboratory fee is charged any student who registers for a laboratory class.

Refund Policy: During the first week of classes students may receive a 50% refund of tuition. NO refunds after the first week of classes. Registration and late registration fees are not refundable. STUDENTS MUST FILE AN APPLICATION FOR REFUND WITH THE EVENING SCHOOL OFFICE.

Waivers: Tuition waivers do not apply to Evening Division Continuing Education subjects. Veterans may receive normal monthly benefits from the Veterans Administration, but there will be no waiver of tuition for subjects taken in a self-supporting program.

Withdrawal: Students withdrawing from any class must officially notify the Evening School Office immediately on forms provided by the office.

Credit Programs

MANAGEMENT
ACCOUNTING
BANKING
INFORMATION SYSTEMS
APPLIED CHEMISTRY
ENGINEERING TECHNOLOGY
- CIVIL
- ELECTRONIC
- MECHANICAL

INDUSTRIAL TECHNOLOGY
- MANUFACTURING OPTION
- WATER & WASTE OPTION
- PLASTICS OPTION

APPLIED MATHEMATICS
APPLIED MATHEMATICS-COMPUTER SCIENCE OPTION
PUBLIC SERVICE
- ADMINISTRATION OF

LAW & JUSTICE
LIBERAL ARTS
NURSING (OPEN TO R.N. ONLY)



FALL SESSION CALENDAR-1981

	Mon	Tues	Wed	Thurs	Fri
Aug	31	1 REGISTRATION	2	3	
September		8	9	10	
	14	15	16	17	
	21	22	23	24	
	28	29	30	1	
October	5	6	7	8	9 Mon. Class
		13	14	15	
	19	20	21	22	
	26	27 Last week to withdraw	28	29	
November	2	3	4	5	
	9	10		12	13 Wed. Class
	16	17	18	19	20 Make Up
	23	24 Thur Class	25		
	30	1	2	3	4 Make Up
December	7	8	9	10	11 Make Up
	14	15	16 — Exams —	17	
	21 — Exams —	22			



REGISTRATION
Undergraduate Program
August 31; September 1, 2, 3
6:30 P.M. - 8:00 P.M. Ball Hall,
Room 214, North Campus

UNDERGRADUATE COURSES

FOR INFORMATION CONTACT
CONTINUING EDUCATION 452-5000 EXT. 2221

First Semester Offerings September 1981

ACCOUNTING, ECONOMICS AND MANAGEMENT

COURSE NO.	COURSE TITLE	NIGHTS OFFERED	PREREQUISITE
67.201	Accounting Principles I	Mon. thru Th.	–
67.202	Accounting Principles II	Mon., Wed.	67.201
67.301	Intermediate Accounting I	Tu., Th.	67.202
67.311	Managerial Accounting	Mon., Wed.	67.202
67.362	Business Law I	Mon., Wed.	–
67.363	Business Law II	Mon.	–
67.401	Adv. Financial Acctng. I	Tu.	67.302
67.411	Cost Accounting I	Wed.	67.202
67.421	Auditing I	Th	67.302
68.201	Economics I	Mon. thru Th.	–
68.202	Economics II	Mon., Wed	–
68.307	Govarnmant and Business	Tu.	68.201 or 68.202
68.312	Managerial Economics	Tu	68.201, 68.202, 90.242
68.332	Money and Banking	Mon., Wed.	68.201, 68.202
69.201	Principles of Management	Mon., Tu., Wad	–
69.321	Marketing Principles	Tu	68.201
69.331	Business Finance	Tu., Th	67.202, 68.201, 68.202
69.353	Organizational Behavinr	Th	47.101, 48.101
69.371	Oparations Management I	Wed	90.241
69.410	Currant Mgt. Problams I	Th	–
69.413	Affirmative Action Myth or Must	Tu	–
69.414	Business Systems and Procedures	Th	69.201
69.417	Raal Estate	Mon	67.362
69.421	Purchasing and Materials Management	Tu	69.321 or permission of instructor
69.426	Sales Management	Wed.	69.321
69.434	Investment Managamant	Wed	69.331
69.451	Personnel Management	Th	69.201
69.452	Industrial Relations	Mon.	69.451
69.463	Mgt. Information Systems I	Th	–
69.481	Risk Mgt. and Insurance	Mon.	–
69.498	Business Policy	Mon.	Senior Standing
90.241	Statistics for Business I	Tu., Th.	90.119
90.242	Statistics for Business II	Mon	90.241

BANKING

69.101	Principles of Banking	Mon.	–
69.102	Bank Management	Mon.	–
69.103	Credit Administration	Tu.	–
69.104	Analyzing Financial Statements	Wed.	67.201
69.105	Installment Credit	Tu.	–
69.106	Real Estate Finance	Wed.	–
69.111	Negotiable Instruments and the Payment Mechanism	Wed.	–

CHEMISTRY

84.111	General Chemistry	Mon. & Wed.	Nursing Students
84.121	Chemistry I	Th.	–
84.122	Chemistry II	Th.	84.121
86.121	Analytical Chemistry	Tu.	84.122; 90.115
84.223	Organic Chemistry IB	Mon.	84.121; 86.231 corequisite
86.231	Organic Chemistry Lab I	Wed.	84.223 corequisite
84.344	Physical Chemistry I	Th.	86.122; 90.132; 99.143; 84.346 corequisite
84.346	Physical Chemistry Lab I	Tu.	84.344 coreqursita
84.334	Advanced Inorganic Chemistry	Mon.	84.345
86.471	Industrial Chemistry	Th.	84.224; 84.345
86.521	Special Topics-Biochemistry	Wed.	–

SCIENCE

81.111	Principles of Biology	Tu.	–
83.101	Life Science I	Tu.	–
83.161	Emergency Care - A First Responders Course	Mon.	–
83.345	Emergency Medical Care I	Th.	–
89.101	General Geology I	Tu.	–
94.341	Fundamentals of Science I	Th.	–
*99.141	Physics I	Tu., Wed., Th.	90.115 (concurrently)
*99.142	Physics II	Wed., Th.	99.141; 90.115 (concurrently)
*99.143	Physics III	Tu.	99.142

* Class and Laboratory
* Some Friday night classes required.

MATHEMATICS

90.010	Introductory Mathematics	Tu., Th.	–
90.111	Fundamentals of Mathematics	Tu., Th.	–
90.112	College Algebra for Management Sciances I	Tu., Th.	90.111 or Placement Exam
90.113	College Algebra	Tu., Th.	90.111 or Placement Exam
92.115	College Trignometry	Wed., Th.	90.113
90.119	College Algebra for Management Sciences II	Th.	90.112
90.131	Calculus I	Mon., Tu.	90.115
90.132	Calculus II	Mon., Tu.	90.131
90.231	Calculus III	Mon., Tu.	90.132
90.232	Calculus IV	Mon.	90.231
90.241	Statistics for Business I	Tu., Th.	90.119
90.242	Statistics for Business II	Mon.	90.241
92.234	Differential Equations	Wed	90.232
92.301	Applied Mathematics I	Th.	90.232
92.307	Intro. to Probability	Tu	90.232
92.321	Discrete Structures	Mon	90.112 or 90.113 or equivalant
92.362	Mathods in Numerical Anal. I	Wed.	90.231/92.263
92.383	Intro. to Statistic	Wed	90.111 or equivalant
92.411	Complax Variables I	Tu	90.232

COMPUTER SCIENCES

92.209	Basic Programming I	Mon. thru Th	–
92.219	Basic Programming II	Mon. thru Th.	92.209 or prior programming experience
92.263	Fortran Programming	Tu., Wed., Th.	90.112 or 90.113
92.265	Introduction to PASCAL	Mon., Wed	–
92.360	Data Structures	Tu., Th	92.263
92.365	COBOL Programming I	Mon., Wed	92.209
92.367	Assembler Language Programming I	Tu	92.209; 92.263
92.368	COBOL Programming II	Wed	92.365
*92.453	PASCAL Programming	Mon., Wed	92.263 or 92.367
92.463	System Design and Development I	Tu	92.367
92.461	System Simulation and Modeling	Wed	92.263
92.474	Data Base Management	Th	92.368

* Credit given for only one of 92.265, Introduction to PASCAL, or 92.453, PASCAL Programming

CIVIL ENGINEERING TECHNOLOGY

15.123	Surveying I	Mon	90.115; 23.111
15.237	Statics	Mon	90.132, 99.141
15.238	Dynamics (CE)	Mon.	15.237; 23.221
15.251	Structural Anal. I	Wed	15.239
15.253	Reinforced Conc. I	Tu	15.239; 15.251
15.255	Environ. Eng'g I	Tu	90.131, 15.124
15.257	Highway Elements	Th	15.124
*15.352	Structural Anal. II	Wed	15.251
*15.392	Soil Mechanics II	Mon.	15.254

* 15.352 and 15.392 will not be offered again untill Fall, 1983
* 15.391 will be offered in Fall, 1982.

ELECTRONIC ENGINEERING TECHNOLOGY

17.127	Electrical Fundamentals	Th.	90.115
17.129	Electrical Fundamentals Lab	Wed	(Non EET only; 17.127 concurrently)
17.223	Electric Circuits I	Wed	90.131 (concurrently); 99.141
17.224	Electric Circuits II	Wed.	90.132 (concurrently); 17.223
17.225	Electric Circuits III	Wed.	17.224
17.237	Electronics Laboratory I	Mon.	17.224
17.241	Energy Conversion	Mon.	17.362
17.359	Electronics Laboratory II	Tu.	17.237; 17.362
17.361	Project Laboratory A	Mon., thru Th	17.360; 17.364
17.363	Electronics II	Th.	17.362
17.365	Applied Linear Devices	Tu	17.350; 17.364
17.371	Logic Design I	Mon., Tu.	17.224
17.381	Engineering Problem Sol. I	Mon., Th.	17.225; 92.234
17.391	Project Laboratory B	Mon. thru Th.	17.361; 17.366
17.392	Project Laboratory C	Mon. thru Th.	17.391

ELECTRONIC ENGINEERING TECHNOLOGY

17.417	Minicomputer Prog.	Mon.	17.382
17.469	Control Systems II	Wed.	17.350
17.477	Electromagnetic Theory II	Th.	17.376
17.481	Microprocessors	Th.	17.382
17.485	Communications Theory I	Mon.	17.376
17.491	Introductory Microprocessor Laboratory	Mon. thru Th.	17.372
17.493	Project Laboratory D	Mon. thru Th.	17.392
17.497	Biomedical Electronics I	Th.	17.350; 17.364; 84.121
17.499	Electronic Research Topics	TBA	92.234; Permission of Coordinator

INDUSTRIAL TECHNOLOGY

20.105	Introduction to Engineering Design	Wed	20.107 corequisite
20.107	Engineering Design Lab	Tu.	20.105 corequisite
20.251	Wastewatar Traatment Plant Operations I	Tu., Th.	20.253 corequisite
20.253	Wastewatar Treatment Lab I	Mon., Tu., Th.	20.251 corequisite
20.225	Watar Chemistry I	Wed.	–
20.257	Watar/Wastewater Plant Managemant	Mon.	–
20.307	Fluid Power Controls	Tu.	–
20.310	Industrial Safety Engineering	Mon.	–
20.351	Water Supply & Treatment Operations I	Th.	–
20.353	Water Works Operations Lab I	Tu.	–
20.354	Industrial Waste Traatment	Mon	–
20.412	Motion & Time Study	Wed	–
20.414	Industrial Economic Management	Th.	–
20.427	Plant Layout & Materials Handling	Th.	20.105; 20.107
20.452	Operation & Maintenance of Wastewater Collectron Systems	Mon.	–

MECHANICAL ENGINEERING TECHNOLOGY

23.111	Engineering Drawing I	Mon., Wed.	–
23.112	Engineering Drawing II	Tu.	–
23.113	Machine Drawing	Wed	23.112
23.221	Statics	Mon.	90.131; 99.141
22.295	Materials Science	Wed.	99.143
23.201	Machine Tool Lab	Tu., Wed	–
23.241	Elements of Thermodynamics	Th	90.132; 99.143
23.242	Applied Fluid Mechanics	Tu	23.222
22.320	Machine Design I	Wed	23.223; 23.222 may be taken concurrently
23.472	Applied Dynamics	Wed.	90.232; 23.222; 23.223
23.475	Heat Transfer	Thr	90.232; 23.243; 23.242
23.404	Manufacturing Process Lab	Mon.	90.115; 23.112
23.471	Design of Automatic Machinery	Th.	17.128, 22.320

CRIMINAL JUSTICE

44.101	The Criminal Justice System	Wed.	–
44.131	Princ. of Law and the Legal System	Th.	–
44.141	Police Functions	Mon.	–
44.151	Intro. to Corrections I	Mon.	–
44.243	Criminalistics I	Tu.	–
44.253	Problems of Misdemeanants	Wed.	47.101
44.254	Probation & Parole I	Tu.	–
44.335	Juvenile Court Philosophy	Th.	–
44.401	Seminar in Drugs	Tu.	–
46.205	Constitutional Law & Civil Liberties	Tu.	–

PLASTICS

27.201	Plastics Materials Science	Mon.	–
27.401	Processing Technology I	Wed.	27.202
27.403	Physical Properties of Polymers I	Mon.	–
27.451	Selected Topics - Rubber	Tu.	–

NURSING

30.201	Community Health (6:00-9:00 PM)	Tu.	–
33.401A	Nursing Care of Clients in Crisis (6:00-9:00 PM)	Mon.	Permission of Coordinator

CLINICAL LABORATORY SCIENCES
(class hours will be 6:00 PM to 9:00 PM)

35.201	Human Anatomy & Physiology	Wed.	84.111; 35.203 coreq.
35.203	Human Anatomy & Physiology Lab I	Th.	35.201 corequisite
35.211	Basic Clinical Microbiology & Pathology	Tu.	See catalogue
35.213	Basic Clinical Microbiology & Pathology Lab	Th.	See catalogue
35.251	Physiological Science I	Mon.	35.102; 35.253 coreq.
35.253	Physiological Science I Lab	Wed.	35.251 coreq.

MEDICAL TECHNOLOGY

36.341	Fundamentals of Clinical Chemistry	Wed.	See catalogue
35.343	Fundamentals of Clinical Chemistry Lab	Th.	See catalogue

AREA I: BEHAVIORAL AND SOCIAL SCIENCES

43.324	Rise of American Industrial Society	Mon.	–
43.239	American Economic History	Wed.	–
43.316	History of Lowell	Th.	–
46.205	Constitutional Law & Civil Liberties	Tu.	–
47.101	General Psychology	Mon., Tu., Th.	–
47.163	The Human Life Span	Wed.	–
47.272	Abnormal Psychology	Wed.	47.101
47.328	Dynamics of Interpersonal Relations	Mon.	–
48.101	Introduction to Sociology	Tu., Th.	–
48.231	Sociology of the Family	Mon.	–
48.293	Futuristics IA	Tu.	–
48.298	Futuristics IIIA	Th.	–
48.359	Sociology of Sports	Wed.	–
88.110	Man & His Environment	Th.	–

AREA II: FINE ARTS AND THE HUMANITIES

42.101	College Writing	Mon. thru Th.	–
42.102	College Writing & Literature	Mon., Tu., Th.	42.101
42.111	Business Writing	Mon., Wed.	42.102
42.112	Technical and Scientific Writing	Wed., Th.	42.102
42.212	Short Story	Wed.	–
42.267	Introduction to Shakespeare	Th.	–
45.201	Introduction to Philosophy	Wed.	–
45.202	Introduction to Logic	Mon.	–
50.101	Beginning French I	Mon.	–
51.101	Beginning German I	Mon.	–
54.101	Beginning Spanish I	Wed.	–
54.211	Intermediate Spanish I	Wed.	54.102
54.246	Advanced Spanish Conversation	Wed.	54.212
58.101	Appreciation of Visual Arts	Wed.	–



Continuing Education

Undergraduate Spring, 1982 Pre-Registration Information

November 16th - December 17th. Registration for Spring semester will begin Monday, January 11th through Thursday, January 14th. Classes begin January 18th.

Workshops & Seminars

Management/Technology

PIPING DESIGN AND ANALYSIS — Sept. 21-22

This structured and intensive two-day seminar will give you the tools you need to design cost-effective and trouble-free piping systems with the flexibility you need built in at the start. In particular you will find out: How to select proper size piping and the right mix of loops, nodes, and sections for your operation. How to choose the right materials, especially for working with corrosive fluids. How to design the system layout to minimize stress. How to write clear specifications to assure ease of installation and minimize start up problems.

THE JOB OF THE CONTROLLER — Sept. 24-25

This seminar enables controllers and other financial executives with controllership responsibilities to "keep up" with the insatiable demands ahead. The faculty will help you find reliable solutions to both simple and complex controllership problems. They'll provide you with a point of view, concepts and techniques for finding what should be done and how to do it. They'll make you a more effective controller because they will organize controllership tasks so that you can perform them systematically, purposefully, and with a high probability of achievement. This is your chance to catch up on the latest developments in corporate controllership.

IMPROVED SOLDERING TECHNIQUES FOR PRODUCTIVITY — Oct. 14-15

-This two day seminar will help you find cost savings to troublesome assembly problems...
-Many production problems in electronic assembly positions can be eliminated with new materials, techniques and advanced technology.
-Realize effective savings by reducing costly mistakes and the number of assembly rejects and rework...
-This is a comprehensive program for every assembly and soldering supervisor, manufacturing and product engineers, quality control and management personnel wanting to keep up with the state-of-the-art.

STRUCTURED TESTING — Oct. 14-15-16

This program is especially valuable for Designers...Programmers...and all levels of management concerned with the design/programming process. Definition of software reliability/hardware reliability. Current trends in software reliability. Errors: causes and consequences.

INVENTORY CONTROL — Oct. 29-30

Increase cash flow and reduce inventory costs. In two days this practical seminar will teach you all the no-nonsense techniques you need to manage inventories and control costs...and how to use these tested techniques to design and operate an effective inventory control system. You'll discover how to create greater cash flow, reduce inventory costs, and improve customer service. And that all adds up to more sales.

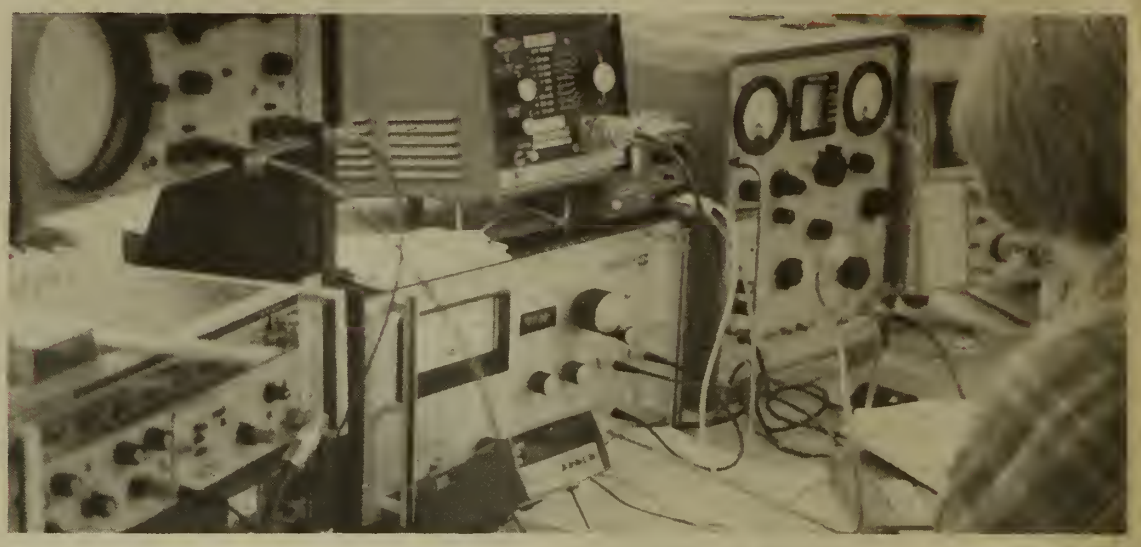
DESIGNING, DEVELOPING, AND OPERATING TELEPROCESSING SYSTEMS — Nov. 4-5

The purpose of this program is to provide the participant with a comprehensive overview of teleprocessing including such topics as the teleprocessing environment (concepts and terminology), teleprocessing equipment, human engineering, network design, and performance evaluation.

UNION FREE MANAGEMENT — Nov. 10

This **one** day workshop/seminar deals frankly with the need for good labor relations. How to stay union free through more effective supervision. At this workshop you will not only learn about good employee relations and communication systems but why continuing vigilance, periodic review of your policies and practices are required.

The use of actual work situations (case studies) will be used to illustrate advantages and consequences.



FUNDAMENTALS OF FIRST LINE MANAGEMENT — Nov. 17

Covers areas as employee motivation; maximum productivity of work force; improve communications especially during conflict situations. Will increase awareness of "people management."

PURCHASING ESSENTIALS FOR THE NEW BUYER — Nov. 17-18

This seminar is designed to help newly appointed Purchasing Personnel obtain skills necessary to cope with the problems that they will be facing in today's environment. It is designed to be practical with attendee participation. Cases will be used.

TOOLS FOR THE DEVELOPING WOMAN MANAGER — Nov. 18-19

Effective management techniques; develop the ability to look at problems; recognize and understand different leadership styles--determine which style is most productive; strengthen interpersonal skills; increase job productivity are all subjects covered in this program.

IMPROVING PURCHASING PERFORMANCE — Dec. 3

This is an outstanding opportunity to spend one day learning new purchasing skills--recharging your present skills. Today's economic environment requires a new look at purchasing. How to buy in periods of short supply and high prices...How to purchase from a sole source...How to gain a competitive advantage...Cases will be used during the presentations.

University of Lowell
Continuing Education and College of Engineering
One University Avenue
Lowell, Massachusetts 01854

Changing World of Plastics

Plastics Seminars

These seminars
- provide the most practical (non-theoretical) courses applicable to materials, processes, designs, applications and/or markets
- continue to keep industry abreast of new developments and changing attitudes or priorities of concern about how best to use plastics
- have become a major center for dissemination of plastics information and training in United States
- have solutions looking for your problems
- are applicable to daily practice for all types of people (technical and non-technical) by providing current and future trends

D V Rosato, Program Director

SEMINARS

1	SPECIAL/WORKSHOP INJECTION MOLDING, STRUCTURAL FOAM MOLDING and REACTION INJECTION MOLDING	PROVIDENCE NOV 16-18
2	SPECIAL/WORKSHOP ADVANCES in BIOMEDICAL POLYMERS	BOSTON OCT 13-14
3	SPECIAL/WORKSHOP ELIMINATING STATIC ELECTRICITY & RADIO-ELECTROMAGNETIC FREQUENCY INTERFERENCE	BOSTON NOV 2-3

	1981				1982
	CHICAGO	ATLANTA	BOSTON	LOS ANGELES	NEW ORLEANS
A. PLASTICS INTRODUCTION, SELECTION, WHAT'S AHEAD	Sep.28-30	Oct.19-21	Nov.11-13	Dec. 1-3	Mar.8-10
B. DESIGNING with PLASTICS	Oct.1-2	Oct.22-23	Nov.19-20	Dec.11-12	
C. INJECTION MOLDING	Oct.5-6	Oct.12-13	Nov.4-5	Dec.7-8	Mar.11-12
E. INJECTION MOLD DESIGN	Oct.7-8	Oct.14-15	Nov.6-7	Dec.9-10	
F. EXTRUSION	Oct.9-10	Oct.16-17	Nov.2-3	Dec.14-15	Mar.11-12
H. BLOW MOLDING	Oct.3	Oct.24	Nov.14	Dec.4	Nov.13
I. ADDITIVES/COMPOUNDS	Sep.28-29	Oct.12-13		Dec.7-8	
K. TESTING OF PLASTICS	Oct.1-2	Oct.16-17		Dec.14-15	
N. REINFORCED PLASTICS		Oct.22-23		Dec.4-5	
O. MARKETS for PLASTICS	Oct.7-8	Oct 14-15	Nov.2-3	Dec.9-10	
P. QUALITY CONTROL				Dec.11-12	

or Business & Industry

Programs in Health Professions

University of Lowell, Continuing education, in cooperation with the Department of Nursing, College of Health Professions will present five separate Programs for Nurses in the Fall term of 1981.

1. **Health Assessment of the Adult for Registered Nurses**
2. **Holistic Health Care -- An Approach for Health Care Workers**
3. **"Professional Burn Out--How to Deal with Stress on the Job"**
4. **Nursing Process: Theory and Application**
5. **Depression and Anxiety**

The above programs will be held at the University of Lowell, South Campus unless otherwise noted.

1. HEALTH ASSESSMENT OF THE ADULT FOR REGISTERED NURSES

Mary Jo Sagaties, F.N.P.C., M.S.N.
Donald Anderson, A.N.P.C., M.S.N.
Veronica Charbonneau, A.N.P.C., M.S.N.

This course introduces the registered nurse to a systems-oriented approach to the skills of history-taking and physical assessment of the adult. Each three hour session combines theoretical input with supervised laboratory practice. Focusing on history-taking and assessment of the head, eyes, ears, nose, throat and the respiratory system, also it encompasses assessment of the cardiovascular, abdominal, genitalia, musculoskeletal, skin and neurological systems. The concept of health assessment as an integral part of the nursing process is emphasized.

COURSE OBJECTIVES: Health Assessment is designed for RN's currently licensed and in practice. At course completion, the registered nurse will be able to:

1. begin to collect and record the health history of an adult
2. define the basic components of physical assessment of the adult
3. demonstrate basic ability in the understanding and use of selected diagnostic instruments
4. demonstrate the basic components of physical assessment of the adult
5. identify normal findings and deviations of the adult via the use of health assessment skills

Enrollment Fee: $120.00
Dates: September 14, 21, 28
October 5, 19, 26
November 2, 9, 16, 23, 30
December 7
Time: 7:00 to 10:00 p.m.

This workshop is limited to 24 participants and has been approved for 36 contact hours by the Mass. Nurses Association.



☐ Please enroll me in the following Workshop(s)-Seminar(s): Programs in Health Professions

☐ Please forward additional information on the following programs:

No. Title Fees

Total_____

Name _____
(Last) (First) (Initial)

Address _____
(Street) (City-State) (Zip)

Company _____

Telephone No. _____
(Home) (Work)

Mail to:
University of Lowell
Continuing Education
One University Avenue
Lowell, MA 01854

Make check payable to: University of Lowell.

2. HOLISTIC HEALTH CARE - AN APPROACH FOR HEALTH CARE WORKERS

Veronica A. Charbonneau

This course provides participants with an opportunity to develop an understanding of the concept of holistic health. Among the systems to be considered are biofeedback, healing, transactional analysis, stress management point pressure, massage and acupuncture.

Dates: Thursdays, Oct. 1, 8, 15, 22, 29
Time: 7:00 to 10:00 p.m.
Enrollment Fee: $50.00

This program has been approved for 15 contact hours by the Mass. Nurses Association.

3. "PROFESSIONAL BURN OUT - HOW TO DEAL WITH STRESS ON THE JOB"

Barbara Neizo, R.N., M.S.

Members of the helping professions are especially prone to professional "Burn Out." This program will define what Burn Out is, as well as how and why it occurs. Participants will determine their own personal level of Burn Out, and identify major on the job stressors. Techniques for Burn Out managment will be discussed and practiced.

COURSE OBJECTIVES:

1. The student should demonstrate an understanding of the Burn Out process, how and when it occurs.
2. The student should demonstrate an understanding of his/her own current level of stress, as well as an ability to identify current major job stressors.
3. The student should demonstrate an understanding of the major symptoms of Burn Out, as well as ability to identify his/her own personal style of dealing with the job stress.
4. The student should demonstrate an understanding of various techniques for Burn Out management.
5. The student should demonstrate an ability to define one specific area of job Burn Out and formulate a contract for its management.

Date: October 8
Time: 7:00 to 10:00 p.m.
Enrollment Fee: $20.00

This program has been approved for 3 contact hours by the Mass. Nurses Association.

4. NURSING PROCESS: THEORY AND APPLICATION

Grace C. Sullivan, R.N., M.S.

A four-hour course which provides a conceptual basis for understanding and utilizing the nursing process in clinical practice. Relationship of the scientific method and problem-solving to the nursing process will be explored, and case studies will be used in which practical application of the process is developed.

Date: September 21
Time: 6:00 to 10:00 p.m.
Enrollment Fee: $20.00

This program has been approved for 4 contact hours by the Mass. Nurses Association.

5. DEPRESSION AND ANXIETY

Marie Ryder, R.N., M.S.

This workshop will help participants gain an understanding of the psychological dynamics of anxiety and depression. Stressed will be methods of intervention for helping individuals. Audio-visual material and experiential activities will highlight content.

At the completion of this workshop the participants will be able to:

1. describe the dynamics of depression
2. list signs and symptoms of depression
3. differentiate between sadness and depression
4. plan nursing care of clients who are depressed
5. identify the stages of anxiety
6. define the general guidelines for nursing intervention in working with clients experiencing anxiety reactions
7. list commonly employed defense mechanisms used to relieve anxiety
8. appreciate the effects of relaxation exercises and side effects
9. identify the significant role that stress plays in our lives and recognize our stress levels

Date: November 6
Time: 9:00 a.m. to 3:00 p.m.
Enrollment Fee: $50.00 which includes meeting materials, coffee break and lunch.

Enrollment is limited to 20 participants. This offering has been approved for .5 CEU's and has been approved for 5 contact hours by the Mass Nurses Association.

Community Service Program

Non Credit Courses

In the Community Service Program the resources of the University are open to adults of all ages and backgrounds in a varied spectrum of non-credit evening courses. The only entrance requirements are a desire for personal enrichment, and a lively curiosity about the world around you. Here you can sharpen and extend your career skills, or discover hidden talents for the cultivation of leisure time; here you can open doors to new and innovative ideas, or, in refresher and remedial courses, bolster both the factual knowledge and the self-confidence you need to make-up work or get a head start on your college career. Here you can treat yourself to a culturally rewarding experience with new friends who share your interests - all in an atmosphere conducive to rapid and pleasant learning.

This list of Community Service Courses exemplifies the University of Lowell's commitment to be an active cultural force in cooperation with the Merrimack Valley community. For this partnership to continue to be fruitful we must have the active participation of the public. We recognize this responsibility, and we welcome your advice in perfecting our existing programs, as well as your suggestions for new courses.

Registration for these courses will be September 16th & 17th, from 6:00 to 8:00 p.m. in Dugan Hall, South Campus. Classes begin September 21st.

Classes may be cancelled due to insufficient enrollment. For those classes that are cancelled, full tuition and registration fees will be refunded.

Participants who withdraw following 1st class meeting will receive a 50% reimbursement of tuition fees. NO REFUNDS are given for withdrawal after 1st class meeting.

In addition to tuition and registration fees as given, certain courses require the purchase of materials and equipment. Every effort is made to keep these additional expenses to a minimum.

This Coupon is Reserved for Non Credit Courses. DO NOT Use for Graduate or Under Graduate Registration.

REGISTRATION BY MAIL - NOW COMMUNITY SERVICE PROGRAM

To assure enrollment in the course of your choice, you may register by mail. Complete the form below and mail with your check, covering tuition and fees by September 12th. By return mail you will receive your official registration card indicating building, classroom, and night of class.

Name:_____ SS _____

Street & No._____ City _____ State_____ Zip_____

Telephone Home_____ Business Telephone_____

Course NO.	Title	Tuition Fees

Detach and Mail to:
University of Lowell, Continuing Education
1 University Avenue
Lowell, MA 01854

Total _____

65 and over "NO TUITION" Policy

Those that are retired, 65 and older, may register for a Community Service Program on a "SPACE AVAILABLE" basis without payment of tuition charges. A fees payment of $5.00 will be charged and where necessary there may be a charge for class materials or texts.

Those participants who Register by Mail will be notified of acceptance during the week prior to starting of classes.

LANGUAGE & LITERATURE

CREATIVE WRITING: FICTION AND POETRY 01-02

A workshop in imaginative writing in which students' work will be analyzed and discussed by the instructor and their fellow students. The course also includes the study of various schools of poetry and fiction.
Tues., 7:00-9:00 p.m. 10 weeks
Instructor: Brian McDonough
Tuition & Fees: $43.00

CREATIVE WRITING: NON-FICTION 01-03

A course designed to teach students the styles and techniques of writing non-fiction articles. Styles to be studied include documentary, biographical, travelogue, "how-to" articles and personality profiles. Also, there will be focus on the journalistic aspects of prose. Part of each period will be a workshop in which student articles will be read and discussed by the instructor and other students.
Thurs., 7:00-9:00 p.m. 10 weeks
Instructor: Brian McDonough
Tuition & Fees: $43.00

PUBLIC SPEAKING & REPORT PRESENTATION 01-05

A practical workshop oriented to establishing confidence and poise for those who have problems in addressing group or expressing opinions, ideas or general oratorial techniques. These discussions will cover techniques of effective oral communication and emphasize mind-body confidence building; guided by Hull's "Speak-Read" delivery techniques.
Mon., 6:30-8:30 p.m. 10 weeks
Instructor: Constance DiBenedetto
Tuition & Fees: $43.00

ENGLISH AS A SECOND LANGUAGE 01-07

A course designed to improve communication skills in English. Emphasis will be placed on speech, listening and discussion skills.
Wed., 6:30-8:30 p.m. 10 weeks
Tuition & Fees: $43.00

CONVERSATIONAL SPANISH I 01-08

Designed for the person who needs or desires a familiarity with the Spanish language, this course emphasizes learning the useful everyday conversation that is essential when travelling or working. The course is taught in conversation; however, instruction in the fundamentals of pronunciation and the basic rules of grammar is included.
Tues., 7:00-9:00 p.m. 10 weeks
Instructor: Priscilla Sicard Donlon
Tuition & Fees: $43.00

CONVERSATIONAL SPANISH II 01-09

A continuation of Conversational Spanish I, with additional emphasis on conversational skills.
Thurs., 7:00-9:00 p.m. 10 weeks
Tuition & Fees: $43.00

CONVERSATIONAL POLISH I 01-10

A course designed for people who wish to develop conversational skill in Polish as the key to an understanding of this important culture.
Tues., 7:00-9:00 p.m. 10 weeks
Instructor: Walter Grondalski
Tuition & Fees: $43.00

CONVERSATIONAL POLISH II 01-11

A continuation of Conversational Polish I, with emphasis on developing reading and writing skills.
Thurs., 7:00-9:00 p.m. 10 weeks
Instructor: Walter Grondalski
Tuition & Fees: $43.00

CONVERSATIONAL FRENCH I 01-13

In business, while travelling or in discussion of art, a knowledge of the French language is most desirable. This course helps the student develop skills in speaking and understanding everyday French.
Wed., 7:00-9:00 p.m. 10 weeks
Instructor: Charles Adams
Tuition & Fees: $43.00

CONVERSATIONAL FRENCH II 01-14

A continuation of Conversational French I, providing additional exposure to the manner of speaking French.
Mon., 7:00-9:00 p.m. 10 weeks
Instructor: Charles Adams
Tuition & Fees: $43.00

THINKING AND STUDY SKILLS 01-15

Adult Students - Are you playing with the idea of returning to school, but, are afraid you won't be able to keep up with the work? This course is designed to help adults become more efficient and successful learners. The program will include such topics as: underlining, outlining, notetaking and preparing for exams. Beginning Oct. 2.
Thurs., 6:30-9:30 p.m. 5 weeks
Instructor: Laurene Ziegler
Tuition & Fees: $43.00

SPEED READING 01-16

The focus of this course is on how to increase your reading efficiency and how to deal with important reading skills that are often neglected.

Emphasis is on increasing reading rate and comprehension. The course is designed to enable students:
- to adjust their reading rate to the difficulty of the material and to their own purpose in reading.
- to understand clearly and accurately what they read.
- to remember more of what they read.
- to develop attitudes toward reading that are purposeful, selective, and critical.

Tues., 6:30-9:30 p.m. 5 weeks, beginning Oct. 27th
Instructor: Laurene Ziegler
Tuition & Fees: $43.00



ART

DRAWING **02-01**

A variety of drawing assignments from the still life to the figure using different drawing mediums. Emphasis is on the basic skills essential to developing a personal style of expression. Each medium and technique will be demonstrated.
Thurs., 6:30-9:00 p.m. 10 weeks
Instructor: Helene Lavasseur
Tuition & Fees: $55.00

PORTRAIT DRAWING/ PAINTING **02-02**

Instruction in drawing and painting the human face. Students may work in pastels or oils and advance at their own individual pace. Learn how to treat the most challenging of all art problems - drawing the human face.
Mon., 7:00-9:30 p.m. 10 weeks
Instructor: David Lowrey
Tuition & Fees: $55.00

CARTOONING **02-03**

Have fun while developing skills in the most popular form of everyday art. Learn to cartoon in simple; but, effective techniques of drawing. Students will prepare comic strips, single panel cartoons, and advertising art.
Thurs., 7:00-9:30 p.m. 10 weeks
Instructor: Wm. Bradbury
Tuition & Fees: $55.00

BEGINNING OIL PAINTING **02-05**

A basic and conventional approach to painting. Students will learn how to stretch and prepare canvas, mix, apply and render the pigment. Assignments will encourage individual expression and exploration of the oil medium.
Tues., 7:00-9:30 p.m. 10 weeks
Instructor: Joan Plummer
Tuition & Fees: $55.00

COMMERCIAL ART **02-08**

Concerned with developing art skills essential to the creation and production of commercially oriented art. Studio assignments will deal with black and white drawings, layouts and paste-ups, lettering and some color problems. Technical aspects of graphics and reproduction will be covered.
Wed., 7:00-9:00 p.m. 10 weeks
Instructor: George Mackey
Tuition & Fees: $55.00

PUBLICATIONS ART **02-09**

For the commercially oriented art student preparing himself for the field of technical communications. Instruction in layout, color overlays, paste-ups and lettering for publications.
Mon., 7:00-9:30 p.m. 10 weeks
Instructor: Wm. Bradbury
Tuition & Fees: $55.00

WOODCARVING **02-10**

An introductory course for the beginning student, covering basic carving with knife and gouges; in the round and relief design, as it applies to the characteristics of wood; finishing and tool sharpening. (Approx. $20.00 for basic tools.)
Mon., 7:00-9:30 p.m. 10 weeks
Instructor: Rupert Stangroom
Tuition & Fees: $55.00

SIGN CARVING **02-11**

An introduction to the design and execution of gracious wooden signs. The course will cover the basics of design, layout and hand carving, using chisels and gouges. Art elements and lettering of signs, care and maintenance of tools will be discussed.
Wed., 7:00-9:30 p.m. 10 weeks
Instructor: Rupert Stangroom
Tuition & Fees: $55.00

FRUIT OF THE LOOM **02-12**

A studio-academic course, which will discuss the history of weaving and the actual technique involved in weaving interlinking fibers. Part of each session will be devoted to visuals and the working out of weaving projects. Some time outside of class should be anticipated for completion of weavings. (Approx. $20.00 for project materials.)
Wed., 7:00-8:30 p.m. 10 weeks
Instructor: Richard Marion
Tuition & Fees: $35.00

WATER COLOR TECHNIQUES **02-13**

Available to beginners and intermediate painters, this class will explore various approaches to water color. Wet on wet, dry brush, glazes, washes, pen and ink, and collage will be techniques employed during the series. Landscapes, still lifes, cities, people and abstract exercises will be the focus of subject matter.

To encourage an individual style, and yet, handle water color spontaneously, with control is the goal of the course.
Thurs., 7:00-9:30 p.m. 10 weeks
Instructor: Gracia Dayton
Tuition & Fees: $55.00

PHOTOGRAPHY I **02-16**

This course is intended for the beginner with a serious interest in the use of creative black & white photography.

Attention will focus upon beginning technique, including exposure control, lighting, composition principles, film development and print making.

Different cameras will be discussed during the first meeting. Several practical demonstrations will be given in the classroom.

Technical considerations will share equal time with exploring the cameras and equipping of a simple working darkroom.

In some cases, a field trip will be held on mutually convenient dates in lieu of classroom session.
Tues., 7:00-9:00 p.m. 10 weeks
Instructor: J. Puleo
Tuition & Fees: $55.00

PHOTOGRAPHY II **02-17**

A direct continuation of the introductory course focusing on improvement of technique as a preparation for expressive photography.

This course also consists of discussion of student work and demonstrations of techniques.

An introduction to the methods of color printing from color negatives and color slides.

Lecture and demonstrations will cover color theory, filters, materials. A variety of assignments provides practice in the use of photographic equipment, solving photographic problems, etc.
Thurs., 7:00-9:30 p.m. 10 weeks
Instructor: Thomas Belkakis
Tuition & Fees: $55.00

CALLIGRAPHY I **02-18**

An introduction to the fine art of lettering from manuscript to the ancient techniques of beautiful and pictorial writing. Using the broad pen the class will start with the Roman Capitals and will continue with the Renaissance Italic. Basic layout and design will also be discussed. (Approx. $15.00 for supplies.)
Tues., 7:00-9:00 p.m. 10 weeks
Instructor: Margaret Moler
Tuition & Fees: $43.00

CALLIGRAPHY II **02-19**

The class will begin with the study of the Uncial and Celtic letter forms, using the broad pen. The course will continue with the study of Versal letters. There will be a brief history of calligraphy and design elements that accompanied each writing style and how they relate to modern letter forms. (Approx. $15.00 for supplies.)
Mon., 7:00-9:00 p.m. 10 weeks
Instructor: Margaret Moler
Tuition & Fees: $43.00

FABRIC COLLAGE **02-20**

This interesting art form utilizes the left overs from other crafts; scraps of material, bits and pieces of trims, threads, buttons and beads, to produce a beautiful piece of artwork. Creating a collage using everyday items and handiwork is a relaxing and enjoyable process.

Students will be led through the various stages of collage and will evolve the design into a personal and unique finished piece of work, suitable for framing.

Approx. $5.00 for supplies.
Tues., 7:00-9:30 p.m. 10 weeks
Instructor: Bonnie Eadie
Tuition & Fees: $55.00

STAINED GLASS I **02-21**

An ancient art which is being rejuvenated as a significant art form. This course is an introduction to the design and construction of ornaments, jewelry boxes, mirrors, and lamps executed in both the "Tiffany" and leaded glass methods. A list of materials to be purchased by the student, will be provided at the first class meeting.
Wed., 7:00-9:30 p.m. 10 weeks
Instructor: Marilyn Mathieson
Tuition & Fees: $55.00

STAINED GLASS II **02-23**

Continuation of Stained Glass I. Previous training or experience in the art necessary.
Mon., 7:00-9:30 p.m. 10 weeks
Instructor: Marilyn Mathieson
Tuition & Fees: $55.00



MUSIC

INTRODUCTION TO MUSIC LISTENING **03-01**

A study of the great masterpieces of the symphonic, solo and chamber repertoire. The objective of the course is the deeper understanding and appreciation of the elements of music and a wider acquaintance with some of the world's finest musical works. The University offers two free concerts a week, October through March, at the University Concert Hall.
Wed., 7:00-9:00 p.m. 10 weeks
Instructor: David Martins
Tuition & Fees: $43.00

JAZZ: ITS HISTORY AND APPRECIATION **03-02**

A non-technical survey of the origins, evolution and continuing development of jazz music as a distinctly original American art form. The course will trace the history of the music from its conception in turn of the century New Orleans, through such varied periods and styles as: Blues, Ragtime, Dixieland, Swing, Bebop, Cool Jazz, West Coast Jazz, Hard Bop, Avant Garde, and Fusion.

Emphasis will be placed on such instrumental, vocal and compositional giants as: Louis Armstrong, Duke Ellington, Count Basie, Lester Young, Charlie Parker, Dizzy Gillespie, Art Tatum, Lennie Tristano, Billy Holiday and Sara Vaughn.
Thurs., 7:00-8:30 p.m. 10 weeks
Instructor: Don Bacon
Tuition & Fees: $35.00

FUNDAMENTALS OF MUSIC **03-03**

A study of the rudiments of harmony and music theory for the non musician who wants to learn more about how music is composed, arranged and notated.
Mon., 7:00-9:00 p.m. 10 weeks
Instructor: A. Holevas
Tuition & Fees: $43.00

GUITAR I **03-10**

A guitar is one of the most versatile of musical instruments, enjoyable as a means of private expression or in public performance. This course helps the student develop the basic styles of guitar playing: melody, chord, and the interpretation of simple rhythms.

No previous musical experience is necessary.
Mon., 7:00-9:00 p.m. 10 weeks
Instructor: A. Donati
Tuition & Fees: $43.00

SPECIAL INTEREST

ESTATE PLANNING 04-03

Introduction to the fundamentals of estate planning for the layman including consideration of the legal and tax consequences of testate and intestate disposition of property, wills, trust, gifts, life insurance, annuities, employee death benefits, avoiding probate, etc.
Tues., 7:00-9:00 p.m. 10 weeks
Instructor: Gerard Cote
Tuition & Fees: $43.00

INTERIOR DECORATION 04-15

Enhance the beauty of your home by applying the techniques of professional interior decorating. Students will learn proper balance and integration of colors, fabrics, furniture styles and arrangement.
Mon., 7:00-9:00 p.m. 10 weeks
Instructor: M. Hamilton
Tuition & Fees: $43.00

INVESTING FOR THE 1980's 04-16

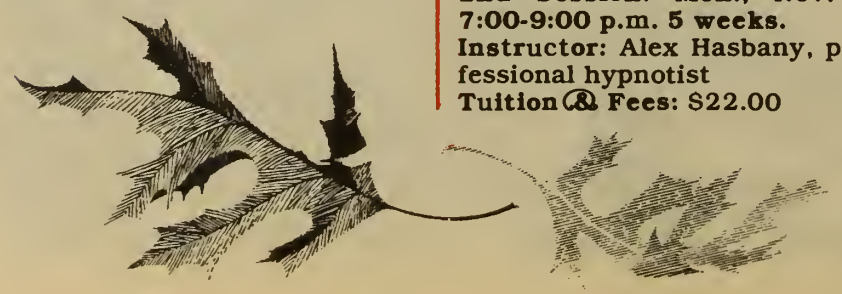
A guide to investment alternatives and expected rates of return in an inflationary economy. Subject matter will include common stocks, bonds, municipal bonds; techniques of fundamental and technical analysis and the place for options; various tax sheltered investments in financial planning.
Mon., 7:00-9:00 p.m. 7 weeks
Instructor: Reginald Johnston, Jr.
Tuition & Fees: $43.00

WINE TASTING WORKSHOP 04-18

An introduction to the major wine varieties and types. Tasting and serving techniques will be explored along with the fundamentals and uses of wine. Approximately 18 wines, selected for their color, bouquet and flavor, will be tasted. An additional charge of $15.00 to cover the cost of the wines, is due at the first meeting. Students should be 20 years of age or older.
Wed., 7:00-9:00 p.m. 6 weeks
Instructor: Charles Saunders
Tuition & Fees: $26.00

ADVANCED WINE TASTING WORKSHOP 04-19

For those who have developed an interest in wines, this course offers a further exploration into the world of wines. The finest wines available from France, Germany and dessert wines (ports, sherries and champagnes) will be tasted and discussed. An additional charge of $30.00 to cover the cost of the wines, is due at the first meeting. Students should be 20 years of age or older.
Tues., 7:00-9:00 p.m. 3 weeks, beginning Nov. 10th
Instructor: Charles Saunders
Tuition & Wines: $15.00



PERSONAL DEVELOPMENT

JOB HUNTING SKILLS 05-02

This course is designed to assist those who are searching for a new career or considering a career change. The sessions will cover such topics as:
- identifying career goals
- defining and packaging personal skills in relation to the current job market
- learning job interview skills
- tracking your progress after the interview.

Mon., 7:00-9:00 p.m. 10 weeks
Instructor: John Coraccio, Jr.
Tuition & Fees: $43.00

HUMAN RELATIONS 05-03

A broad based course designed to help the individual understand the forces which affect his behavior in the community and at work. Introduction to basic concepts of behavioral science and their application to management. Organizational, cultural and individual behavior in relation to managerial environments and fields of business administration. Techniques and skills to achieve effectiveness in interpersonal relations. Development of new supervisory methods; conflict resolving techniques and alternative modes of communication.
Mon., 7:00-9:00 p.m. 10 weeks
Instructor: Joseph Begley
Tuition & Fees: $43.00

TRAVEL AND TOURISM 05-04

An introduction to the glamorous world of the travel agent. The course is designed to familiarize the student with the travel industry. Travel and its attendant problems will be discussed from both the agent's and consumers's viewpoints.

Students will learn sales techniques, how to plan simple and complicated itineraries, schedule hotels, fares, tour groups, special interest and needs programs.

This course is of special interest to those who are considering re-entering the job market or those seeking an exciting new job opportunity.
Wed., 7:00-9:00 p.m. 10 weeks
Instructor: Julia Low
Tuition & Fees: $43.00

SELF-HYPNOSIS 05-05

Lectures will consist of a brief history of hypnosis, and basic concepts of the psychology of hypnosis. Each session will include open discussion, questions and answers. Students will receive instructions and training in self-hypnosis for self-improvement, as well as mind-power development, attitude modification (positive thinking). Students should be 18 years of age or older.

Two sessions will be scheduled:
1st Session: Mon., Sept. 21, 7:00-9:00 p.m. 5 weeks
2nd Session: Mon., Nov. 9 7:00-9:00 p.m. 5 weeks.
Instructor: Alex Hasbany, professional hypnotist
Tuition & Fees: $22.00

ASERTIVENESS TRAINING & COMMUNICATION SKILLS 05-07

The purpose of these meetings will be to develop communication and assertiveness skills. These traits should assist one to cope with the social, personal, familial, or professional situations that one may encounter causing undue anxiety or stress.
Wed., 7:00-9:00 p.m. 10 weeks
Instructor: David Favreau
Tuition & Fees: $43.00

PRACTICAL SKILLS

BASIC CREWEL 06-01

Basic Crewel is a stimulating course designed for the student who has little or no experience in needle arts. Students will learn a variety of stitches, procedures and techniques, ultimately learning how to achieve balance and harmony through stitch and color placement. Skills will be mastered while working on Elsa William's floral kit entitled, "The Lowell." (Approx. $10.00 for materials.)
Tues., 7:00-9:00 p.m. 8 weeks
Instructor: Mary Jane Mastrovich
Tuition & Fees: $35.00

NEEDLEPOINT 06-02

An introduction to the beautiful and practical art of needlepoint. Introduction to the basics of needlepointing - canvas direction, placement of stitches. Explanation of canvas size and qualities. Preparation of canvas. Discussion of different types of thread.

Class will practice two basic stitches on "doodle cloth" before working on the class piece. Individualized instruction will permit each student to progress at own pace. Twenty-two stitches will be learned, depending on the piece worked. Both the "doodle cloth" and the class sampler will be completed and will be suitable for framing. (Approx. $12.00 for materials.)
Wed., 7:00-9:00 p.m. 8 weeks
Instructor: Mary Jane Mastrovich
Tuition & Fees: $35.00

BUILDING THE ENERGY EFFICIENT HOUSE 06-04

Of interest to Designers, Builders and Contractors. A series of discussions designed to present a practical insight to the building of a "Super Insulated House" which slashes energy costs, we encourage builders, contractors and laymen, who are contemplating building, renovating or expanding present structures to attend this series of discussions designed to provide a practical insight and understanding of this mode of construction.

Gene Leger states that one does not have to incorporate expensive solar equipment to achieve the optimum "ENERGY EFFICIENCY." In fact, houses requiring this source of heating are improperly designed.

Gene has proven the idea that one can build for approximately the same building costs (as done conventionally) a house that can be heated for minimum expense while providing a very comfortable living experience.
Thurs., 6:30-9:30 p.m. 8 weeks
Instructor: Gene Leger
Tuition & Fees: $50.00

MIXOLOGY - (or how to Make a Good Drink) 06-03

This course is designed to give the basics of concocting the most popular drink recipes. It will cover the needs from a small house party to a professional situation. Class is conducted by a professional hostess and is limited to 20 students. Upon the recommendation of the instructor, certificates of completion will be awarded.

Students should be 20 years of age or older.
Wed., 7:00-9:00 p.m. 12 weeks
Instructor: Joanna Hamlin
Tuition & Fees: $57.00

PRIVATE PILOT COURSE 06-05

Designed for those who wish to obtain a Private Pilot's Certificate or a pilot who wants a refresher course for the bi-annual flight review required by the F.A.A. It is also ideal for the spouse co-pilot or someone just interested in learning more about aviation

The course will make extensive use of Sanderson audio-visual materials and will cover the major topics needed to complete the Private Pilot Written Examination. The topics to be covered are as follows:

- Science of Flight

Airplane components and their functions and aerodynamics

- Airplane Systems and Instruments

Flight control systems, flight instruments, airplane power plants and related systems

- Weight Balance and Performance

Meteorology, weather theory, aviation weather reports and forecasts and charts

- Basic Navigation

Cartographics, plotter and wind triangles, flight computer and dead reckoning navigation

- Radio Navigation

VOR, ADF, DME, and area navigation

- Air Traffic Control and Communications
- Airmen's Information Manual
- Federal Aviation Relations
- Physiology of Flight

Mon., 7:00-9:30 p.m. 10 weeks
Instructor: Donald Dodge
Tuition & Fees: $69.00

PILOT'S BASIC INSTRUMENT COURSE 06-06

Designed for the pilot who would like to start working toward an instrument ticket by passing the written examination or as a refresher course for a pilot who needs updating.

Topics to be covered are:

- Airplane Systems

Review of airplane instruments in relation to instrument flight

-Instrument Pilot's Meteorology

Forecast sequences, map interpretations

-Communications

-Publication Review of the Flight Computer

-Radio Navigation Charts

-Review of VOR, ADF, ILS

-Approach and Landing Regulations

-Flight Planning and ATC Clearances

-Air Traffic Control

Thurs., 7:00-9:30 p.m. 10 weeks
Instructor: Donald Dodge
Tuition & Fees: $69.00



BASIC COMMUNICATION SKILLS WITH THE DEAF 06-07

An introduction to different modes of communication with deaf individuals (body language, fingerspelling, Signed English, American Sign Language) non verbal communication skills.

For beginners and those wishing a basic review. Deaf individuals will participate in instruction.

Tues., 6:30-9:00 p.m. 10 weeks
Instructor: Karen Spaneas
Tuition & Fees: $56.00

CPR - CARDIO-PULMONARY RESUSCITATION 06-12

Immediate cardiopulmonary resuscitation is often life saving for victims of heart disease, electrical shock, drug intoxication, automobile accident, suffocation, poisoning, and choking.

The student learns to recognize and provide immediate treatment for airway obstruction and cardiac respiratory arrest.

Certificates will be awarded upon completion of series.

One session: Sept. 22, 24, 25th
Tuition & Fees: $18.00

BASIC GARDENING 06-13

Course designed to teach the basics of home vegetable gardening including; garden planning, seeds and transplants, soils and fertilizers, insects and diseases, companion planting and harvesting.

Tues., 7:30-9:30 p.m. 8 weeks
Instructor: Paula Milner
Tuition & Fees: $35.00

ADULT SWIMMING & RECREATION 06-14

For the beginner: to prepare the non-swimmer for safe, recreational activity in or about the water.

For the intermediate: to familiarize participants with proper stroke mechanics in four categories - elementary backstroke, sidestroke, breaststroke, and front crawl stroke.

Students must be 18 years of age or older. All participants will be expected to sign statement of physical condition. Both classes are co-ed. Please bring personal equipment, towel and soap.

Beginner: Friday, 6:00-7:30 p.m. 10 weeks
Intermediate: Friday, 7:30-9:00 p.m. 10 weeks
Each session will have a segment for recreation
Instructor: Andrew Cornellier
Tuition & Fees: $35.00

ORIENTATION TO COMPUTERS 06-16

An orientation program that should provide participants with a basic introduction to how computers work. Concurrently, developing an understanding of the jargon related to computer operations and becoming better equipped to interrelate with others in your organization. This series should provide participants with an oversight of computer operations and their applications to the business world.

Wed., 7:00-9:00 p.m. 10 weeks
Instructor: Dennis Ready
Tuition & Fees: $43.00

DEVELOPMENT OF LEISURE TIME

BASIC HANG GLIDING 07-01

An introduction to the art of soaring. Starting with the history, design of hang gliders, how to fly, necessary safety precautions and basic weather conditions. Introductory lessons will be given in conjunction with flight operations. Approved ground school test will be conducted for "certification."

Ground School classes will be held Tuesday evenings, 7:00-9:30 p.m. Flight operations will be held on the following Saturday.

NOTE: To be eligible for flight, students must present doctor's certification of physical fitness for this activity. Insurance is compulsory - $6.00 for six months or $12.00 for one year.

Tues., 7:00-9:30 p.m. 5 weeks
Instructor: William Blood
Tuition & Fees: $65.00

ADVANCED HANG GLIDING AND METEOROLOGY 07-02

Advanced Hang Gliding and Meteorology is open to students who have active Class I or II certificates. Classes will cover advanced flight techniques, thermals and weather interpretations.

NOTE: To be eligible for flight, students must present doctor's certification of physical fitness for this activity.

Wed., 7:00-9:30 p.m. 5 weeks. Flight operations given on following Saturday.
Instructor: William Blood
Tuition & Fees: $65.00

BEGINNING BELLY DANCING 07-03

Taught by Cyan, professional belly dancer, this oriental art not only provides entertainment, but also is an easy and enjoyable way of toning the body. All you need are leotards, body suit, and willingness.

NOTE: All participants must sign a statement of physical condition the first night of class.

Tues., 7:00-8:00 p.m. 8 weeks
Instructor: Cyan
Tuition & Fees: $22.00

ADVANCED BELLY DANCING 07-04

For those who have had previous belly dance lessons and wish to learn more, Cyan provides an advanced course where the student will learn to combine the basic dance steps and the rhythm of the finger cymbals into a graceful dance routine.

Tues., 8:15-9:15 p.m. 8 weeks
Instructor: Cyan
Tuition & Fees: $22.00

BEGINNING HATHA YOGA 07-05

Students will learn deep and proper breathing as well as many beginning yoga postures. These movements will help the student develop agility, balance, endurance and vitality.

Loose fitting, comfortable clothing is recommended (leotards for women, gym shorts for men.) A mat or small rug should be brought to class.

NOTE: All participants must sign a statement of physical condition the first night of class.

Thurs., 6:00-7:30 p.m. 10 weeks
Instructor: Helen Sia
Tuition & Fees: $40.00

CONTINUING HATHA YOGA 07-06

For those who have already learned basic postures, but, wish to continue the practicing and to learn new postures. Breathing and basic asanas will be reviewed. The problem areas of each student will be studied, and new postures introduced accordingly.

NOTE: All participants must sign a statement of physical condition the first night of class.

Thurs., 7:30-9:00 p.m. 10 weeks
Instructor: Helen Sia
Tuition & Fees: $40.00

BALLROOM DANCING I 07-08

Grace, elegance, dignity, poise and self-assurance are some of the benefits to be derived from this pleasureful activity.

These lessons are being offered at the introductory level to all desiring to acquire the ability to "trip the light fantastic."

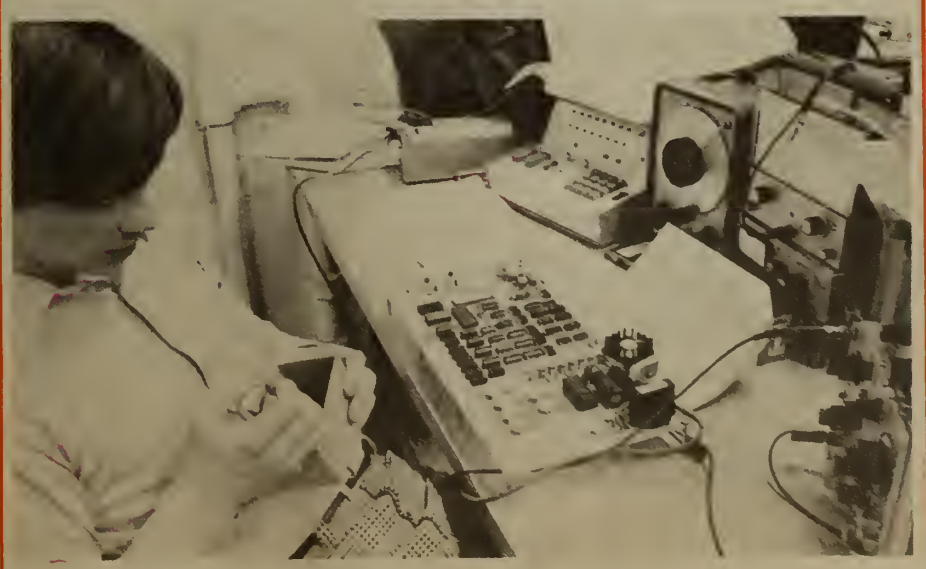
Classes to be conducted under the supervision of Thomas and Marie Parker dance specialists from our locale.

Wed., 7:00-8:00 p.m. 10 weeks
Instructors: Thomas & Marie Parker
Tuition & Fees: $15.00 per person

BALLROOM DANCING II 07-09

Further refinement of the basics listed in the aforementioned program leading to combinations that are adaptable to up-beat dancing.

Wed., 8:15-9:15 p.m. 10 weeks
Instructors: Thomas & Marie Parker
Tuition & Fees: $15.00 per person



BEGINNING GOLF 07-11

An introduction to the game for those who want to learn the right way to play. Terminology, basic rules of golf and the proper etiquette on the course will be presented. Equipment, the fundamentals of the swing, (grip, stance, posture and finish) will be examined. Specific exercises to improve your game will be discussed.

NOTE: All participants must sign a statement of physical condition the first night of class.

Fri., 6:30-8:30 p.m. 6 weeks
Instructor: Richard Mastrovich
Tuition & Fees: $35.00

INTERMEDIATE GOLF 07-12

A refresher course for those who already know how to play the game and now want to play correctly. The course will review the basics of the game, swing theory, putting and approach. Concentration is placed on analysis and correction of swing. Instruction will be given on how to play trouble shots.

NOTE: All participants must sign a statement of physical condition the first night of class. Wear sneakers and bring a nine-iron to the first class.

Fri., 8:15-9:45 p.m. 6 weeks
Instructor: Richard Mastrovich
Tuition & Fees: $35.00

STARTING YOUR OWN BUSINESS 09-07

Do you have the personal qualifications of the successful entrepreneur? Do you know what steps you should take, and in what order, to launch a successful business? Do you know why businesses fail - and what pitfalls to avoid to be successful?

This six week workshop is designed to give you important answers to those questions.

Topics include:
- What it takes to be an Entrepreneur
- Market Planning
- Legal Aspects of a Small Business
- Financial Planning for Entrepreneurs

Mon., 6:30 - 8:30 p.m., 6 weeks beginning Sept. 28th
Workshop Leader: Prof. Charles Feeney
Tuition & Fees: $70.00

REFRESHER & REMEDIAL COURSES

BASIC ENGLISH 08-01

This course, while concentrating on "everyday" usefulness, will explore and teach basic principles of clear writing. Emphasis will be on effective methods of communication of ideas, including definition, description, narration and argumentation as well as grammar.

Tues., 6:30-9:00 p.m. 10 weeks
Tuition & Fees: $60.00

BASIC MATH 08-03

Fundamental properties of basic math, including natural numbers, integers, rationals and real numbers. Decimal and percent notation.

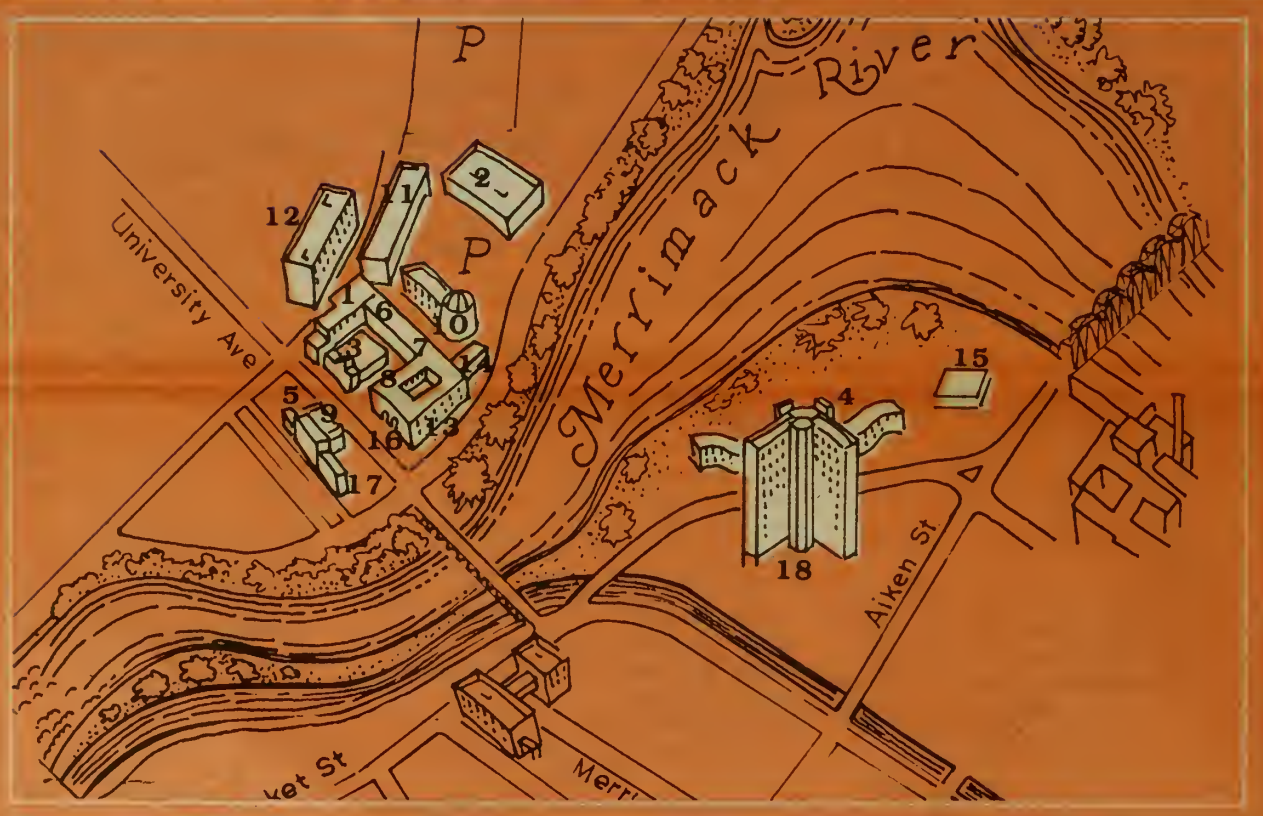
Thurs., 7:00-9:30 p.m. 10 weeks
Tuition & Fees: $60.00





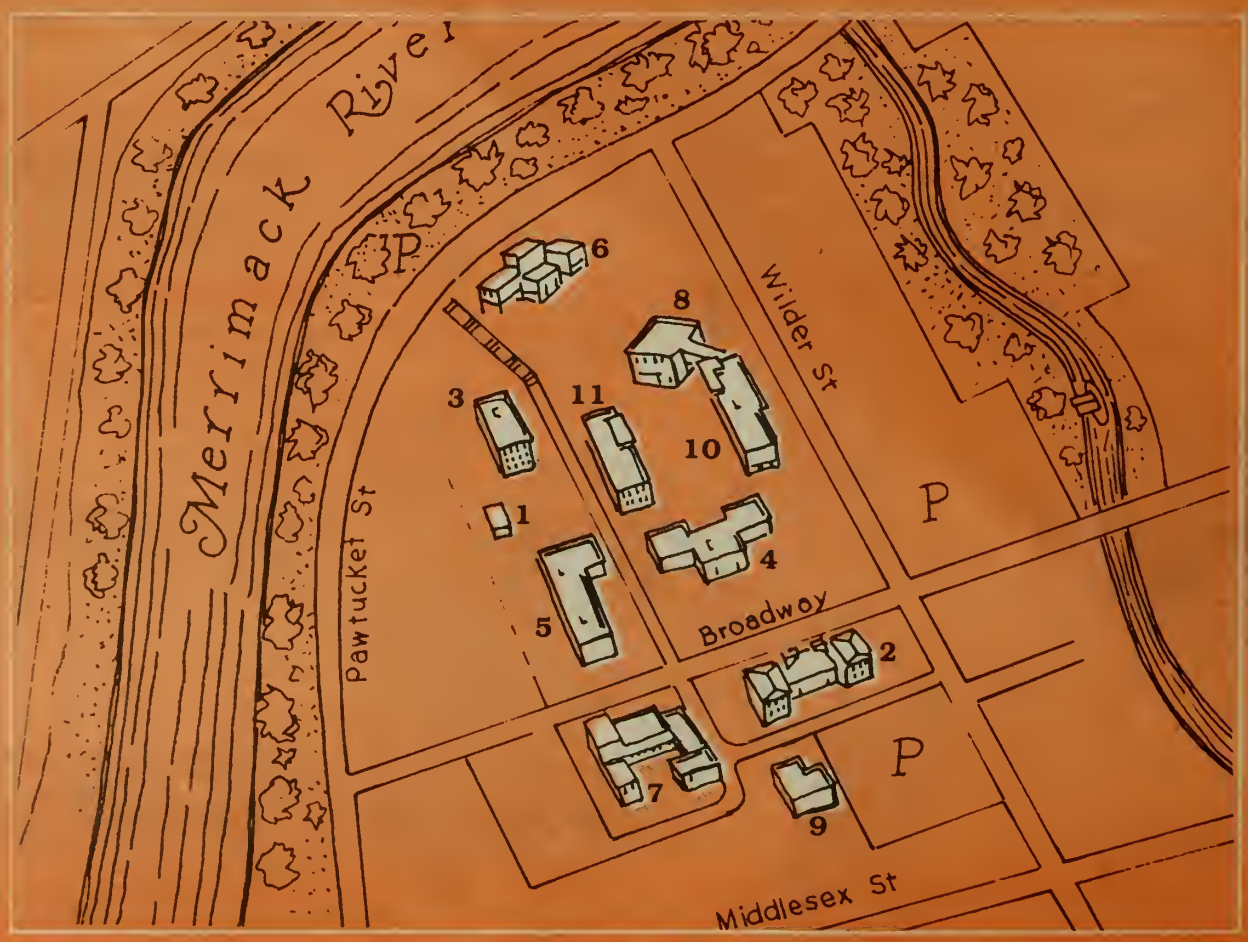






North Campus

1. Ball Center
2. Costello Gym
3. Cumnock Hall
4. Dormitories
5. Eames Hall
6. Engineering
7. Falmouth Hall
8. Kitson Hall
9. Library, Alumni/Lydon
10. Nuclear Center
11. Olney Hall
12. Olsen Hall
13. Pasteur Hall
14. Power plant
15. Research Foundation
16. Southwick Hall
17. Smith Hall
18. Student Union



South Campus

1. Allen House
2. Coburn Hall
3. Concordia Hall
4. Dining hall
5. Dugan Hall
6. Durgin Hall
7. Mahoney Hall
8. O'Leary Library
9. Power plant
10. Student Union
11. Weed Hall